



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/765,266

01/27/2004

George H. Streib

KMC / 298US

9576

26875

7590

08/02/2005

WOOD, HERRON & EVANS, LLP  
2700 CAREW TOWER  
441 VINE STREET  
CINCINNATI, OH 45202

EXAMINER

LE, KHANH H

ART UNIT

PAPER NUMBER

2875

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

51

**Office Action Summary**

Application No.

10/765,266

Applicant(s)

STREIB ET AL.

Examiner

Khanh H. Le

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/28/04 &amp; 6/17/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6, and 11-14 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ryder et al. (US Patent No. 3,945,717).
3. With respect to claim 1, Ryder disclosed an illuminating magnifying lens structure having a housing (Fig. 1, item 12), an aperture formed inside the housing permitting an unobstructed view through the housing (viewing area, item 40), and a light source coupled to the housing (item 13) to illuminating the dental shade and the natural tooth.
4. With respect to claim 2, Ryder disclosed the housing is generally rectangular shape (Fig. 2) having a top (item 19) and bottom wall (unidentified in drawings), two end walls (side, items 20 and 21) and two side walls (unidentified in drawings) and the aperture formed through the side walls.
5. With respect to claim 3, Ryder disclosed the aperture's shape is generally rectangular (viewing area, Fig. 2, item 40, Col. 2, lines 45-48).
6. With respect to claim 6, the light source (Fig. 2, item 13) extends along at least a portion of the aperture (Fig. 2).

Art Unit: 2875

7. With respect to claim 11, Ryder disclosed an illuminating magnifying lens structure having a power source (battery, Fig. 1, item 14) carried by the housing to power the light source.
8. With respect to claim 12, Ryder disclosed the power source includes at least one battery (Col. 2, lines.29-31).
9. With respect to claim 13, Ryder disclosed the housing also include a handle (Col. 1, lines 32-35).
10. With respect to claim 14, Ryder disclosed an illuminating magnifying lens structure having a magnifying glass (lens element, Fig.1, item 28) coupled to the housing and positioned such that visualization through the aperture also take place through the magnifying glass.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loggie (US Patent No. 2,502,014).

14. With respect to claim 4, Ryder teaches an illuminating magnifying lens structure having a light bulb mounting along the long side of the aperture but did not teach an illuminating magnifying lens structure having more than one light bulb. Loggie teaches an optical color comparison apparatus having two viewing lenses (Fig. 6, items 10 and 11) placed between four fluorescent light bulbs (Fig. 6, item 14-17) so that the light will be uniform on all portion of the compare surfaces (Col. 5 lines 28-46). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to add an additional light bulb to the opposite side of the first light bulb so that the illuminating magnifying lens structure can produce more uniform light distribution across the surface of the object being viewed.

15. Claims 5, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryder in view of Friedman et al. (US Patent No. 4,221,994).

16. With respect to claims 5 and 18, Ryder teaches an illuminating magnifying lens structure having a light bulb but did not teach any specific type of light bulb to be used. Friedman teaches a miniature fluorescent lamp can be use in a dental process since is it is efficient and compact (Col. 2, line 8). The miniature fluorescent lamp can be mounted inside a probe that designed to fit within the oral cavity (Col. 2, lines 16-20). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ Friedman's miniature fluorescent lamp in the illuminating

Art Unit: 2875

magnifying lens structure of Ryder so that the illuminating magnifying lens structure of Ryder can be compact and efficient to use.

17. Claims 7, 8, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryder in view of Friedman et al. (US Patent No. 4,221,994) as applied to claim 5 and 18 above, and further in view of Shimizu et al. (US Patent No. 6,224,240 B1).

18. With respect to claims 7, 8, 19, and 20, Ryder teaches an illuminating magnifying lens structure having a light bulb but did not teach about the color temperature the light bulb must produced. Friedman teaches to use a miniature fluorescent lamp since the fluorescent lamp is efficient and compact, but did not teach to use the fluorescent lamp for tooth's shade matching. Shimizu teaches a fluorescent lamp for categorical color perception having color temperature in the range of 1700 K to 6500 K (Col. 3, lines 10-14) allows categorical perception of an object that has surface colors of at least red, green, blue, yellow and white. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to employ Shimizu's fluorescent lamp in the miniature fluorescent lamp of Friedman so that the fluorescent lamp of Shimizu can be miniature and further mounted it on the illuminating magnifying lens structure of Ryder so that the illuminating magnifying lens structure of Ryder can be use to compare a dental shade to a natural tooth.

19. Claims 9, 10, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryder in view of Gonser et al. (US Patent No. 5,003,434).

Art Unit: 2875

20. With respect to claims 9, 10, 21 and 22, Ryder teaches an illuminating magnifying lens structure having a light bulb but did not teach about the illuminance intensity of the light bulb. Gonser teaches a miniature hand-held spot source of illumination should be at about 150 foot-candles (Col. 3, lines 24-30) in order to have the highest efficiency of eye response in the dental operations (Col. 3, lines 10-15). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a light source that can produce an illuminating intensity up to 150 foot-candles in the illuminating magnifying lens structure of Ryder so that the illuminating magnifying lens structure of Ryder can be compatible with dental operations.

21. With respect to claim 15, Ryder disclosed an illuminating magnifying lens structure having a housing (Fig. 1, item 12), an aperture (viewing area, item 40) through the housing having first and second opposed sides (unidentified in drawings) and permitting an unobstructed view through the housing, a handle extending from the bottom wall (unidentified in drawings), and a light bulb (item 13) mounting along the long side of the aperture to illuminating the dental shade and the natural tooth. Ryder did not teach an illuminating magnifying lens structure having more than one light bulb. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to add an additional light bulb to the opposite side of the first light bulb so that the illuminating magnifying lens structure can produce brighter and more uniform light distribution across the surface of the object being viewed.

Art Unit: 2875

22. With respect to claim 16, Ryder disclosed the housing is generally rectangular shape (Fig. 2).

23. With respect to claim 17, Ryder disclosed the aperture's shape is generally rectangular (viewing area, Fig. 2, item 40, Col. 2, lines 45-48).

24. With respect to claim 23, Ryder disclosed an illuminating magnifying lens structure having a power source (battery, Fig. 1, item 14) carried by the housing to power the light source.

25. With respect to claim 24, Ryder disclosed the power source includes at least one battery (Col. 2, lines 29-31).

26. With respect to claim 25, Ryder disclosed an illuminating magnifying lens structure having a magnifying glass (lens element, Fig. 1, item 28) coupled to the housing and positioned such that visualization through the aperture also take place through the magnifying glass.

27. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clar (US Patent 5,055,040) in view of Shimizu et al. (US Patent No. 6,224,240 B1).

28. With respect to claims 26-28, Clar teaches a method for comparing a dental shade to a natural tooth is to place a shade guide adjacent with the patient's tooth (Col 1, line 12-15) and illuminate both with a light source preferably 5000 K (Col. 2, line 59). Shimizu teaches a fluorescent lamp for categorical color perception having color temperature in the range of 1700 K to 6500 K (Col. 3, lines 10-14) allows categorical perception of an object that has surface colors of at least red, green, blue, yellow and white. It would have been obvious to one having ordinary skill in the art at the time of



Art Unit: 2875

the invention was made to employ Shimizu's fluorescent lamp in the process of comparing a dental shade to a patient's natural tooth of Clar so that the patient's repaired tooth color is match with the patient's natural tooth.

29. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clar in view of Gonser et al. (US Patent No. 5,003,434).

30. With respect to claim 29, Clar teaches a method for comparing a dental shade to a natural tooth is to place a shade guide adjacent with the patient's tooth and illuminate both with a light source but did not teach about the required illuminance intensity of the light source. Gonser teaches the illuminance intensity of a miniature hand-held spot source output should be about 150 foot-candles (Col. 3, lines 24-30) in order to have the highest efficiency of eye response in the dental operations (Col. 3, lines 10-15). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to have a light source that can produce an illuminance intensity up to 150 foot-candles in the illuminating magnifying lens structure of Ryder so that the illuminating magnifying lens structure of Ryder can be compatible with dental operations.

Art Unit: 2875


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh H. Le whose telephone number is (571) 272-8325. The examiner can normally be reached on Monday - Friday, 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh H. Le  
Examiner  
Art Unit 2875

KHL

  
Stephen Husar  
Primary Examiner